DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-010719 Address: 333 Burma Road **Date Inspected:** 10-Dec-2009

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: You Oi Guo, Tu Jun **CWI Present:** Yes No **Inspected CWI report:** Yes No N/A **Rod Oven in Use:** Yes No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** OBG/ Tower

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance Inspector (QA) Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY #13

This QA Inspector randomly observed the following work in progress.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 058100 performing Submerged Arc Welding process for the weld SEG065* located on PCMK OBG segment 11AW. ZPMC QC Mr. Guo Xing Hui monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-223 (2) 1T-2.

BAY #11

This QA Inspector randomly observed the following work in progress.

WEST TOWER LIFT #4

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 040736 performing Flux Cored Arc Welding process for the weld SSTL4-2C/L-31 located on PCMK Fit lug at 119m double diaphragm. ZPMC QC Mr. You Qi Guo monitoring this welding. The welding variables recorded by QC appeared to comply with the

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

WPS-B-T-4333-TC -P4-F.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 040704 performing Flux Cored Arc Welding process for the weld SSTL4-2F/L-35 located on PCMK Fit lug at 123m double diaphragm. ZPMC QC Mr. You Qi Guo monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-4333-TC -P4-F.

BAY #10

This QA Inspector randomly observed the following work in progress.

SOUTH TOWER LIFT #4

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 040343 performing Shielded Metal Arc Welding process for the weld SSTL4-1B/L-3B located on PCMK South tower lift 4. ZPMC QC Mr. Tu Jun monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-2G (2F) -Repair. The weld repair report identified as B-WR2718.

HEAVY DOCK

NORTH TOWER LIFT #1

This Quality Assurance (QA) Inspector and Caltrans QA Inspector Mr. Paul Dawson observed ZPMC personnel using a floating crane to move North Tower Lift 1 from the horizontal to the vertical position. This QA Inspector used a digital video camera to record this event. The move appeared to progress smoothly and no problems occurred during this operation. ZPMC positioned this tower adjacent to the other three standing towers (South tower lift #1, East tower lift #1 and West tower lift #1) and when the tower was lowered to approximately 150 mm ZPMC stopped additional lowering of the tower. It appears there may be interference between some of the shear links that are protruding from various towers, which prevents additional lowering of North Tower Lift 1. As of around 0200 hours most of the ZPMC workers left the heavy dock and North Tower Lift 1 was being supported by the floating crane. For additional information see attached photos.

Unless otherwise noted, all work observed on this dated appeared to generally comply with applicable contract documents.





WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang +(86) 150.0042.2372, who represents the Office of Structural Materials for your project.

| Inspected By: | Utekar,Shrikant | Quality Assurance Inspector |
|---------------|-----------------|-----------------------------|
| Reviewed By: | Dawson,Paul | QA Reviewer |